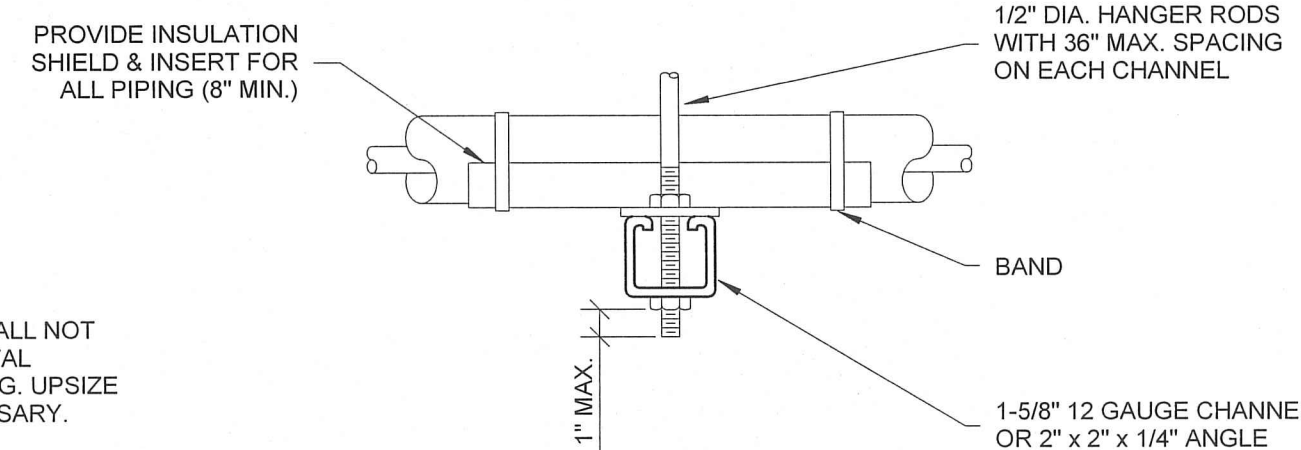


ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS
ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS

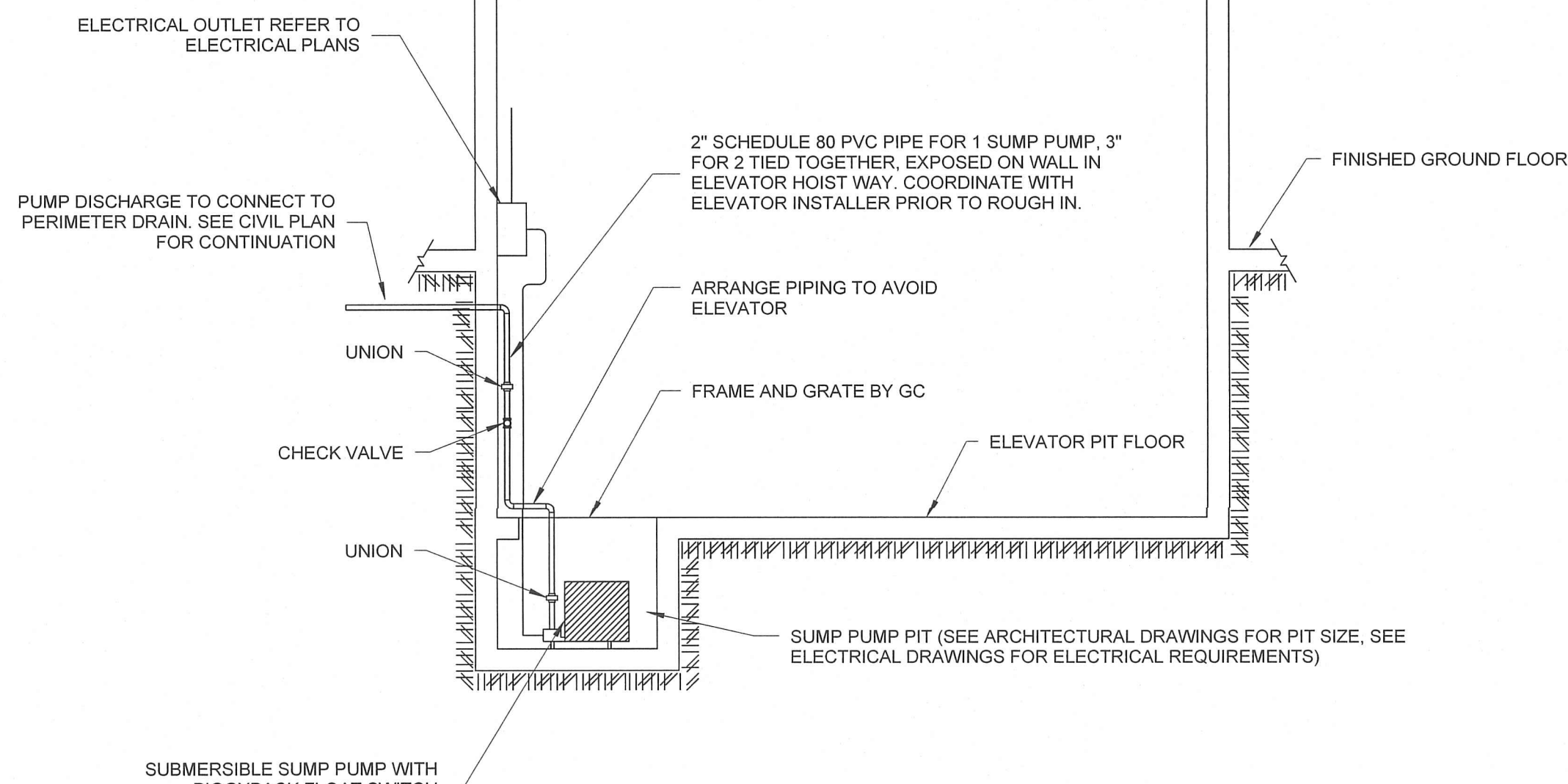


SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

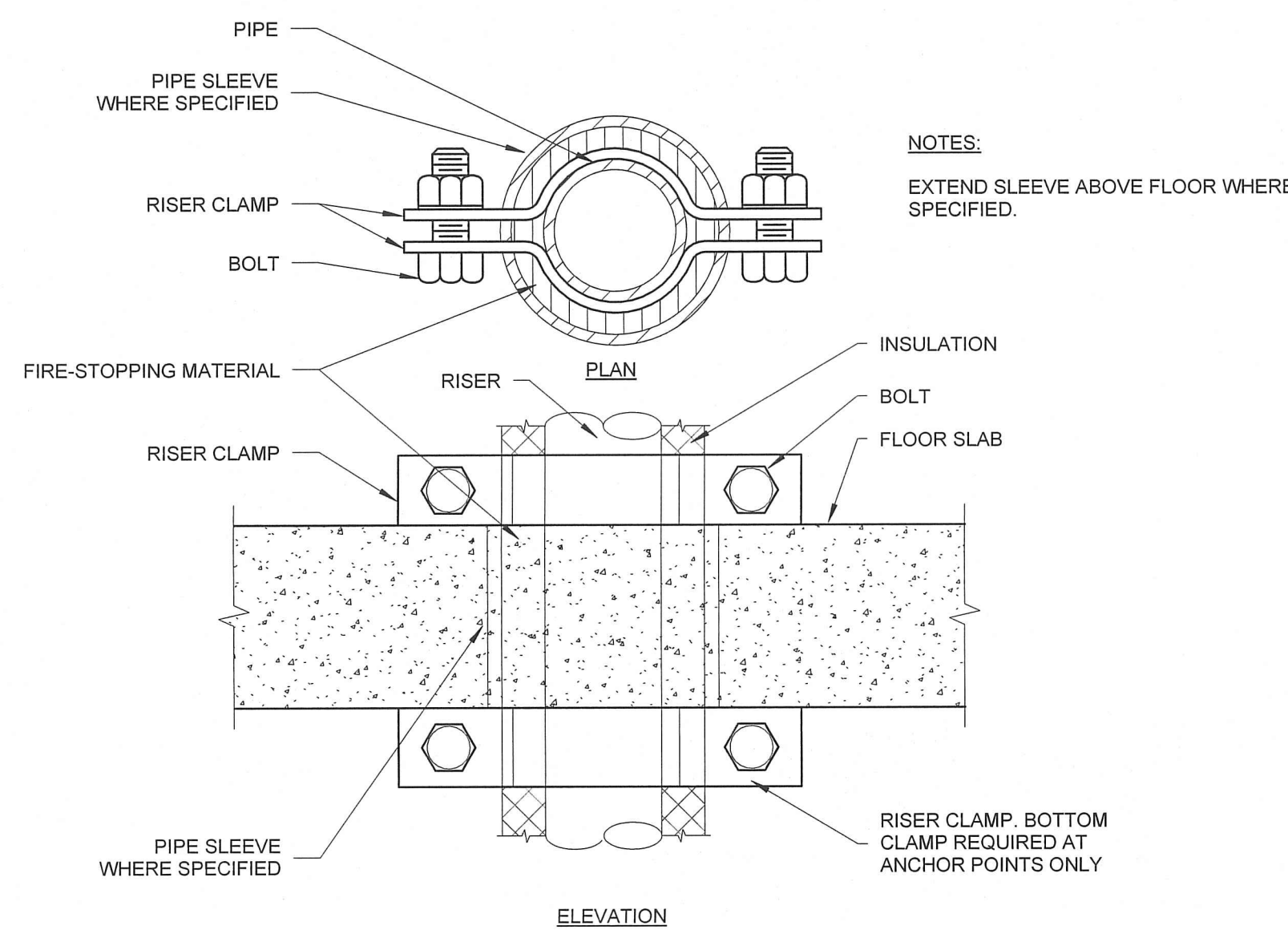
MAXIMUM PIPE/TUBING SUPPORT SPACING													
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8		
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19		
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16		

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE

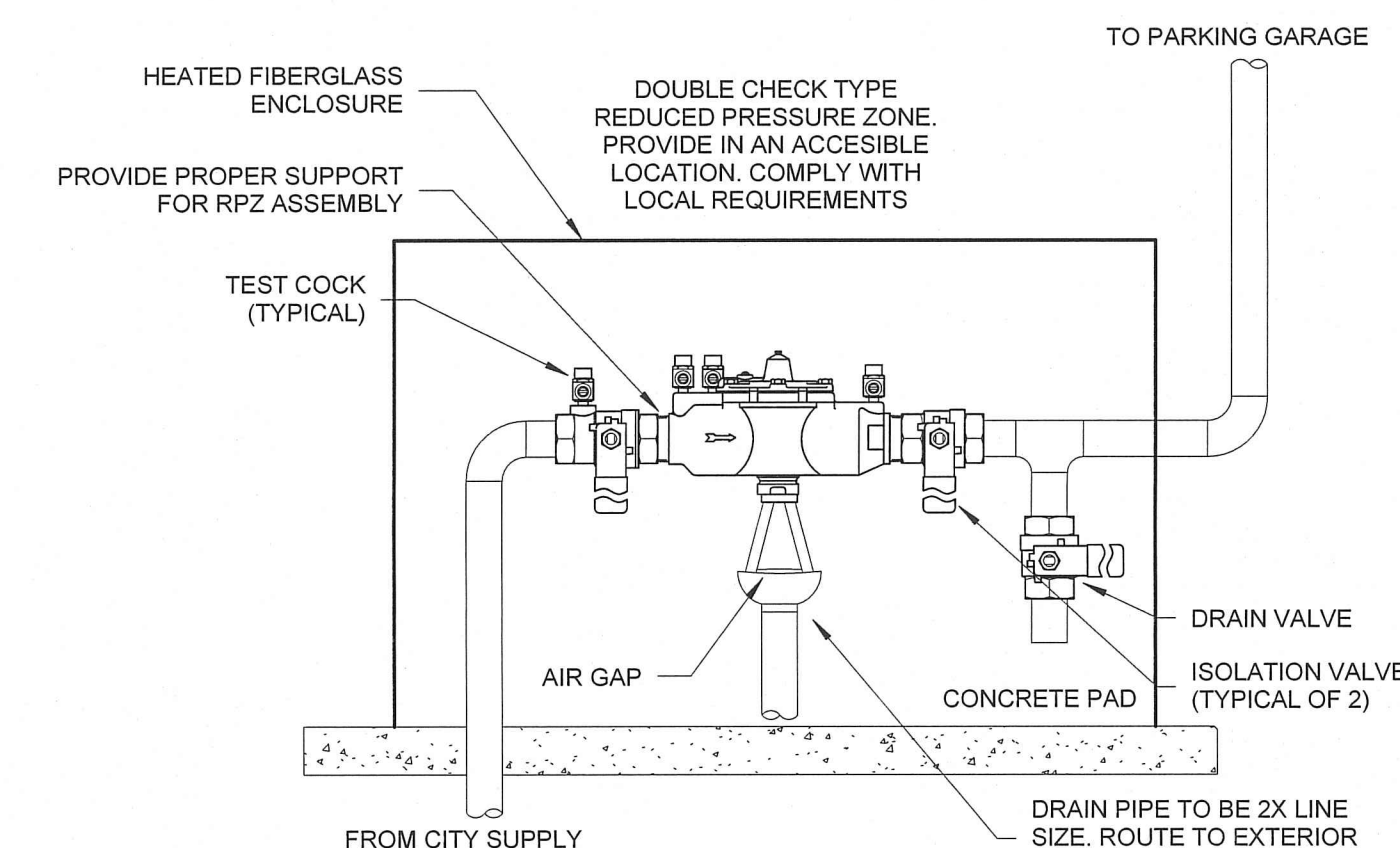
NOTES:
PIPING SUPPORT SHALL NOT RESTRICT HORIZONTAL MOVEMENT OF PIPING. UPSIZE HANGERS AS NECESSARY.



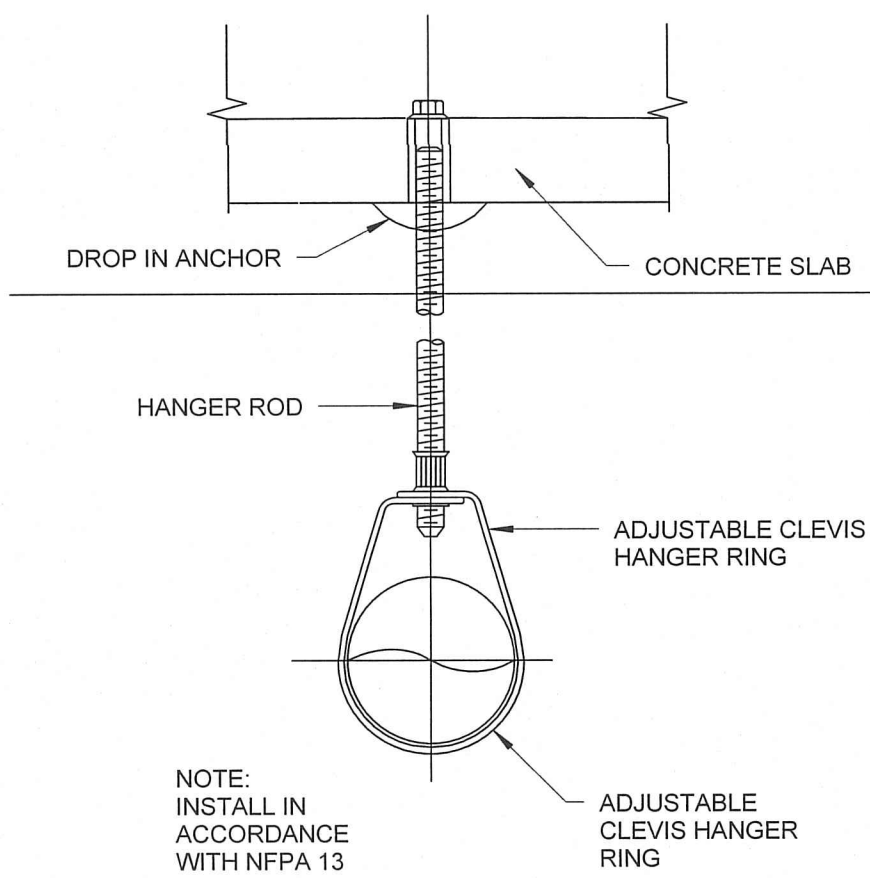
2 SUMP PUMP DETAIL
PI001 N.T.S.



3 SUPPORT/ANCHOR FOR PIPE RISERS
PI001 N.T.S.



4 RPZ INSTALLATION DETAIL
PI001 N.T.S.



5 CONCRETE PIPE HANGER DETAIL
PI001 N.T.S.

PLUMBING GENERAL NOTES

- THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH ALL PROJECT SPECIFICATIONS AND ALL VA STANDARDS. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
- THESE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, TEES, ELBOWS, ETC FOR A COMPLETE WORKING PLUMBING SYSTEM.
- THE PLUMBING CONTRACTOR SHALL COMPLY WITH ALL VA PERMIT AND INSPECTION PROCEDURES REQUIRED FOR THIS WORK.
- CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER IN ADVANCE. SEE SPECIFICATION SECTION 01 00 00 FOR SPECIFIC TIME FRAME REQUIREMENTS.
- ALL DOMESTIC PIPING SHOWN IS LOCATED OVERHEAD OR MOUNTED ON THE WALLS UNLESS NOTED OTHERWISE.
- ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY ALL VA STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- ALL PIPING PENETRATIONS THRU NEW OR EXISTING WALLS OR FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW OR EXISTING WALL OR FLOOR.
- ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED PER VA STANDARDS.
- THE PLUMBING CONTRACTOR SHALL COORDINATE ALL PLUMBING PIPING WITH ALL STRUCTURAL COMPONENTS.
- THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH ALL VA STANDARDS.
- MANUFACTURER'S TRADE NAMES AND NUMBERS USED HEREIN ARE ONLY TO IDENTIFY COLORS, FINISHES, TEXTURES, AND PATTERNS AS THE BASIS OF DESIGN. PRODUCTS OF AUTHORIZED EQUAL MANUFACTURER'S EQUIVALENT TO COLORS, FINISHES, TEXTURES AND PATTERNS OF MANUFACTURERS LISTED THAT MEET REQUIREMENTS OF TECHNICAL SPECIFICATIONS IN EVERY RESPECT MAY BE ACCEPTABLE WITH SUBMITTAL OF A COMPLETED SUBSTITUTION REQUEST CONTAINING ALL PRODUCT DATA, TESTING AND ACTUAL SAMPLES AND UPON APPROVAL IN WRITING BY CONTRACTING OFFICER.
- IN THE CASE OF CONFLICTS AND DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, THE BETTER QUALITY, MORE STRINGENT REQUIREMENTS OR GREATER QUALITY OF WORK, AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.

PLUMBING LEGEND

—SD—	STORM DRAIN (SD)
---SD---	STORM DRAIN (SD) - UNDER SLAB
- . - . -	DOMESTIC COLD WATER PIPING (DCW)
—○—	PIPE TURNS UP
—○—	PIPE TURNS DOWN
—○—	CONTINUATION

PLUMBING ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
FFE	FINISHED FLOOR ELEVATION
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
DCW	DOMESTIC COLD WATER
FCO	FLOOR CLEANOUT (FLOOR OR SLAB)
FD	FLOOR DRAIN
GCO	GRADE CLEANOUT
GW	GREASE WASTE
HB	HOSE BIBB
HD	HUB DRAIN
IW	INDIRECT WASTE
DHW	DOMESTIC HOT WATER
P-#	PLUMBING FIXTURE - NUMBER
P.C.	PLUMBING CONTRACTOR
V	VENT
V.T.R.	VENT THROUGH ROOF
W	WASTE
WCO	WALL CLEANOUT
SD	STORM WATER

BID DEDUCTS

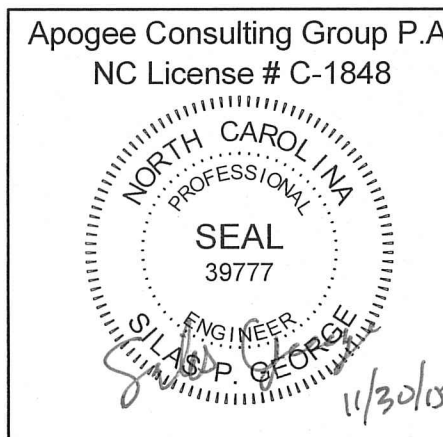
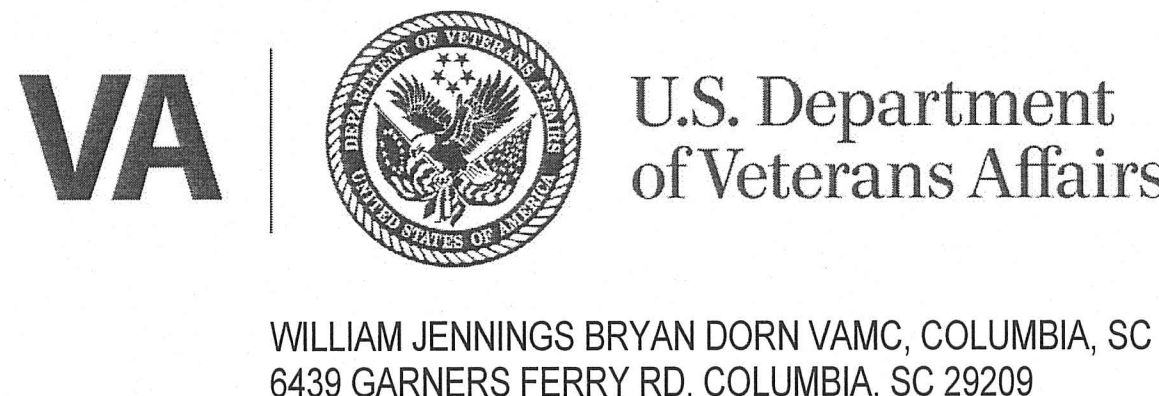
ALT	DESCRIPTION (REFER TO SHEET G1103 FOR MORE INFORMATION)
1	DO NOT PROVIDE CCTV CAMERAS THROUGHOUT THE GARAGE. CCTV CABINET, EQUIPMENT, AND ALL CONDUIT AND CABLE TO EACH CAMERA LOCATION SHALL REMAIN IN BASE BID FOR CONNECTION TO FUTURE CAMERAS PROVIDED BY THE VA.
2	DO NOT PROVIDE ELEVATOR NUMBER 2. HOISTWAY SHAFT IS TO REMAIN, BUT REMOVE ALL EQUIPMENT ASSOCIATED WITH ELEVATOR TWO.
3	REMOVE ALL LANDSCAPING FROM SCOPE EXCEPT FOR THE BIO-RETENTION AREA. REPLACE ALL PLANNED LANDSCAPE AREAS WITH SEEDING. REMOVE THIN-SET BRICK FROM SCOPE AND PROVIDE COLORED PRECAST CONC. PC-1 IN ITS PLACE. REMOVE GLAZING AND STOREFRONT FROM SECONDARY STAIR TOWER. REPLACE OPENINGS WITH FALL DETERRENT DETAIL. REDUCE HEIGHT OF SECONDARY STAIR TO HEIGHT OF TOP LEVEL GARAGE SPANDREL (+37'-9") AND CONTINUE FALL DETERRENT DETAIL AROUND PERIMETER OF SECONDARY STAIR TOWER. REMOVE PREFABRICATED ALUMINUM CANOPY COVER ON TOP LEVEL OF THIRD EGRESS STAIR. REMOVE PRECAST STAIR COMPONENTS AND RAILINGS FROM LEVEL 1 UP TO LEVEL 3 OF THE THIRD EGRESS STAIR. LEAVE THE REQUIRED STAIR THAT CONNECTS LEVELS 3 AND LEVEL 4 FOR EGRESS. REMOVE GLAZING AND STOREFRONT FROM INTERIOR SIDE OF TOP FLOOR LOBBY AT MAIN STAIR TOWER. GLAZING AND STOREFRONT ON EXTERIOR SIDE OF TOP FLOOR IS TO REMAIN.
4	DO NOT PROVIDE AREA #1 - LEVEL 4. REFER TO DRAWINGS ON G1103 FOR EXTENT OF AREA DEDUCT.
5	DO NOT PROVIDE AREA #2 - LEVEL 4. REFER TO DRAWINGS ON G1103 FOR EXTENT OF AREA DEDUCT.
6	DO NOT PROVIDE AREA #3 - LEVEL 4. REFER TO DRAWINGS ON G1103 FOR EXTENT OF AREA DEDUCT.
7	DO NOT PROVIDE AREA #4 - LEVEL 3. REFER TO DRAWINGS ON G1103 FOR EXTENT OF AREA DEDUCT.

PLUMBING FIXTURE SCHEDULE				
TAG	DESCRIPTION	WASTE PIPE	COLD WATER	REMARKS
FCO	FLOOR CLEANOUT	4"	--	SEE SPECIFICATION SECTION 22 13 00. GREY IRON HOUSING WITH CLAMPING DEVICE
GD-1	PARKING DECK DRAIN FOR SLABS	8"	--	SEE SPECIFICATION SECTION 22 14 00
GD-2	PARKING DECK DRAIN FOR SLABS	6"	--	SEE SPECIFICATION SECTION 22 14 00
GD-3	PARKING DECK DRAIN FOR SLABS	4"	--	SEE SPECIFICATION SECTION 22 14 00
GD-4	PARKING DECK DRAIN FOR SLABS	10"	--	SEE SPECIFICATION SECTION 22 14 00
ORD-1	ROOF DRAIN	3"	--	SEE SPECIFICATION SECTION 22 14 00
P-501	FREEZELESS WALL HYDRANT	--	3/4"	SEE SPECIFICATION SECTION 224000. AUTOMATIC DRAINING BACKFLOW PROTECTION, LOOSE KEY
RD-1	ROOF DRAIN	3"	--	SEE SPECIFICATION SECTION 22 14 00
RPZ-1	REDUCED PRESSURE PRINCIPLE ASSEMBLY	--	1"	PROVIDE AIR GAP FITTING AND INDIRECT WASTE TO GRADE

SUMP PUMP SCHEDULE													
MARK	LOCATION	AREA SERVED	TYPE	FLUID	FLOW	HEAD	TEMP.	MIN % EFF	HP	PHASE	VOLT	SPEED CONTROL	REMARKS
SP-1	ELEV. PIT	ELEV. PIT	SIMPLEX	WATER	50 GPM	15 ftH2O	50 °F	NA	1/2	1	115	NONE	[WITH OIL/WATER DISCRIMINATING FEATURE. HIGH OIL AND HIGH WATER LIMIT ALARMS.]

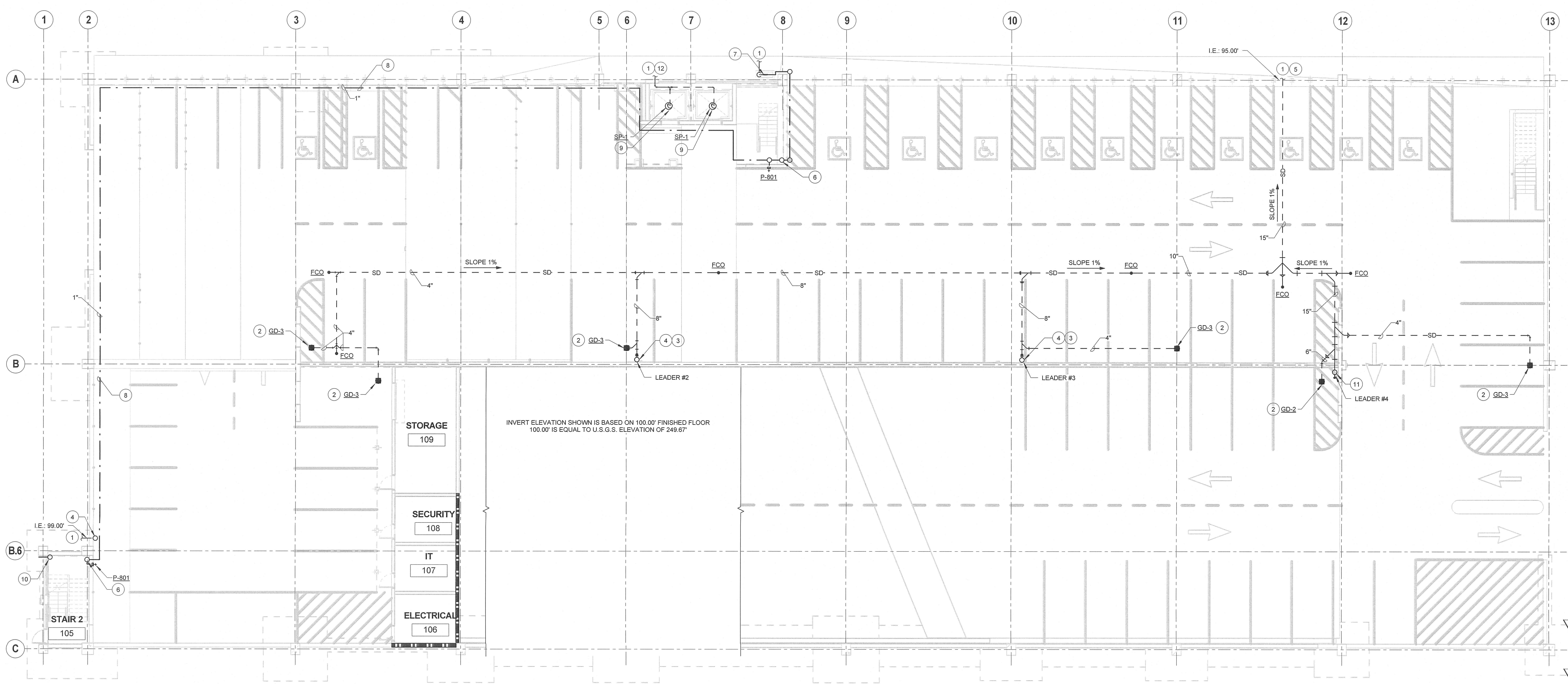
CONSTRUCTION DOCUMENTS

Drawing Title PLUMBING NOTES AND LEGEND	Project Title CONSTRUCT PARKING GARAGE	A/E Project Number 15.1003	OFFICE OF FACILITIES MANAGEMENT
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER	Location COLUMBIA, SC VAMC	Building Number BLDG 108	VA Project Number 544-306
Date 4 DEC 2015	Checked By: SPG	Drawn By: ORD	VA Project Number 544-306
PI001			

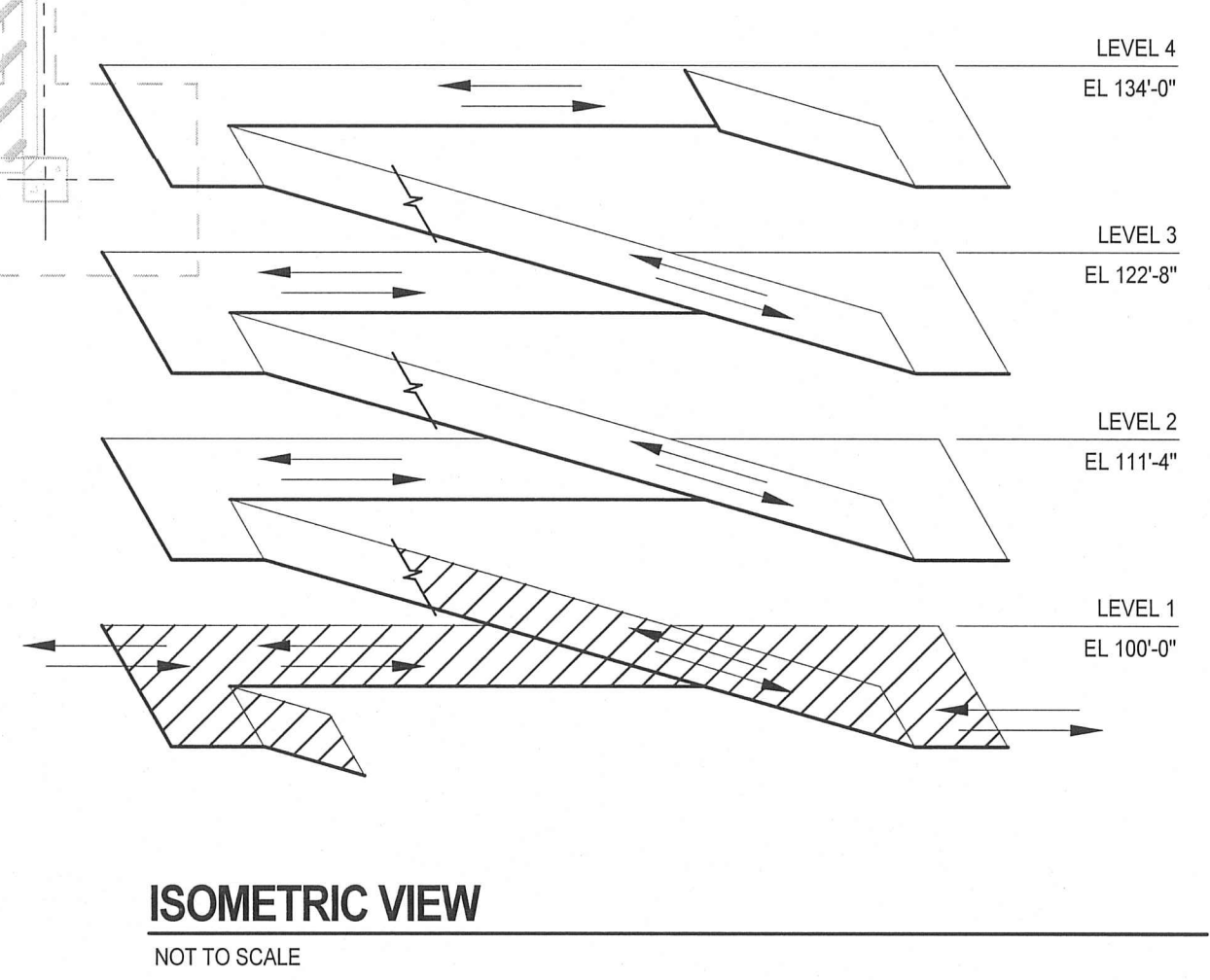


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

- KEY NOTE
- 1 SEE CU101 SITE UTILITY PLAN FOR CONTINUATION.
 - 2 CENTER DRAIN ON EDGE OF WASH. COORDINATE FLOOR DRAIN LOCATIONS WITH STRUCTURAL PLANS.
 - 3 PROVIDE CLEANOUT AT THE BASE OF THE RISER.
 - 4 8" Ø STORM DRAIN CONDUCTOR UP.
 - 5 INVERT ELEVATION FOR STORM PIPE IS 5 FEET BELOW FINISHED FLOOR ELEVATION. COORDINATE WITH CIVIL PRIOR TO INSTALLATION OF STORM PIPING.
 - 6 1" DOMESTIC COLD WATER UP AND DOWN. SEE 1/PP102 FOR CONTINUATION.
 - 7 RPZ IN HOT BOX (30W). SEE 4/PI001.
 - 8 ROUTE DCW PIPE TIGHT TO BOTTOM OF DOUBLE TEES.
 - 9 SEE 2/PI001 SUMP PUMP DETAIL.
 - 10 3" Ø STORM DRAIN OVERFLOW CONDUCTOR UP. SEE 1/PP102 FOR CONTINUATION. TERMINATE WITH DOWNSPOUT NOZZLE AT 24" AFF AND PROVIDE SPLASH BLOCK.
 - 11 12" Ø STORM DRAIN CONDUCTOR UP. TRANSITION TO 15" Ø WHEN TURNING HORIZONTAL UNDER SLAB.
 - 12 3" SUMP PUMP DISCHARGE OUT OF ELEVATOR PIT TO BE PICKED UP BY CIVIL.



1 LEVEL 1 - PLUMBING PLAN
PP101 3/32" = 1'-0"



Revisions:	Date

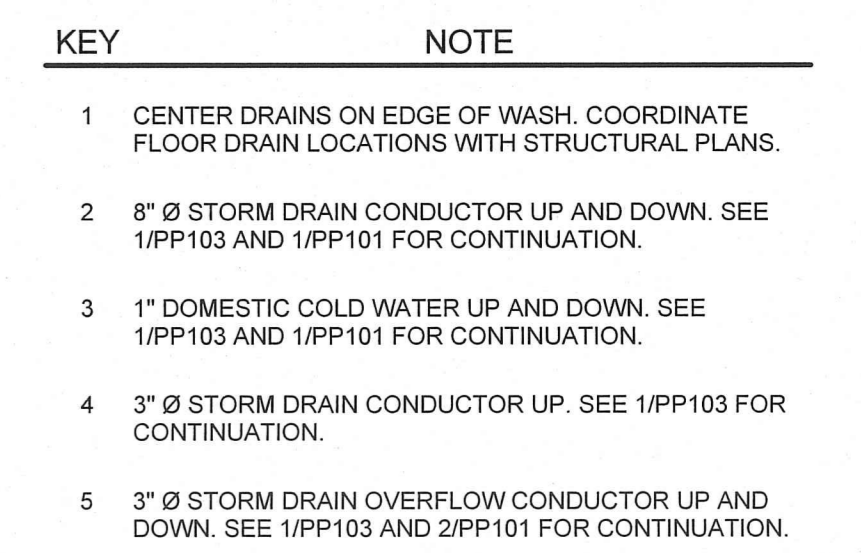
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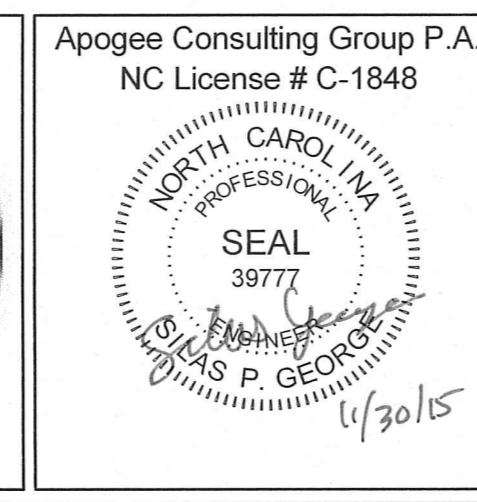
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CONSTRUCTION DOCUMENTS					
Drawing Title LEVEL 1 PLUMBING PLAN		Project Title CONSTRUCT PARKING GARAGE		A/E Project Number 15.1003	
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER		Location COLUMBIA, SC VAMC		Building Number BLDG 108	
Date 4 DEC 2015		Checked By: SPG		Drawn By: ORD	
				Drawing Number PP101	
				VA Project Number 544-306	
				OFFICE OF FACILITIES MANAGEMENT VA U.S. Department of Veterans Affairs	





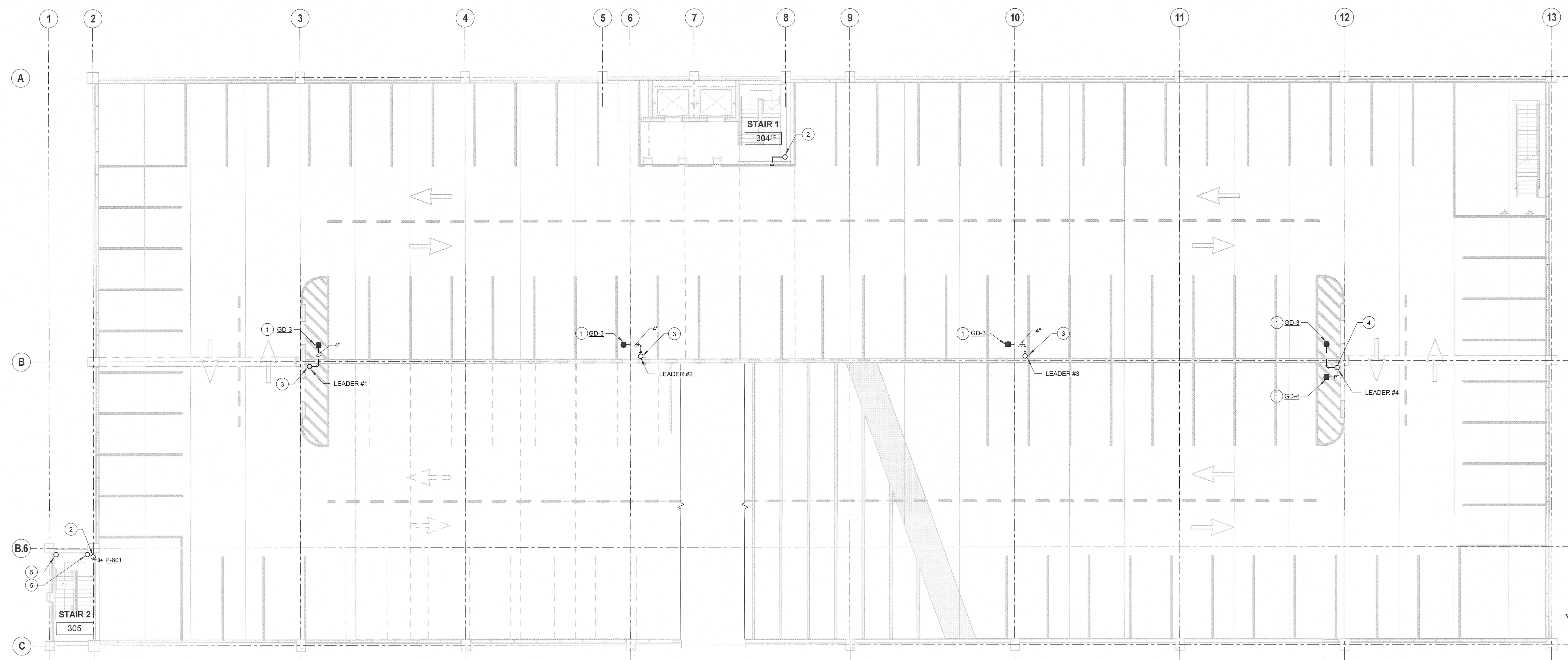
VA |  **U.S. Department
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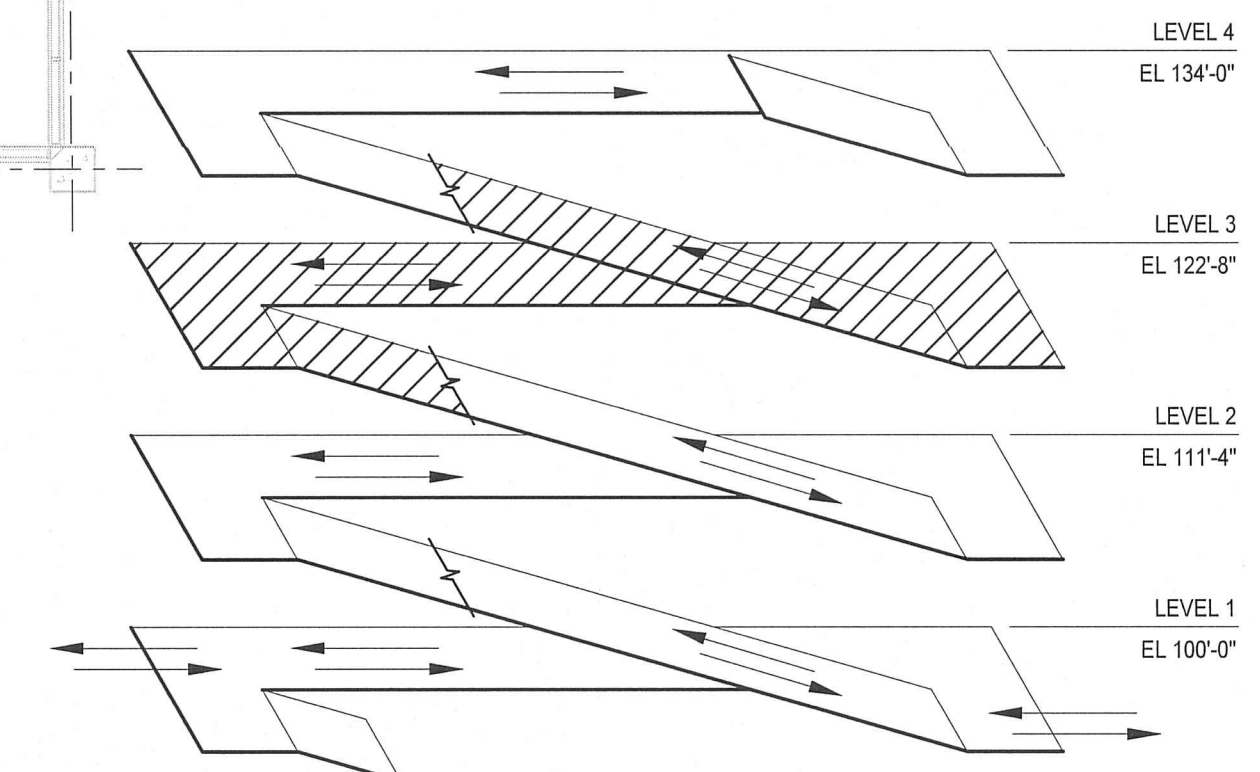
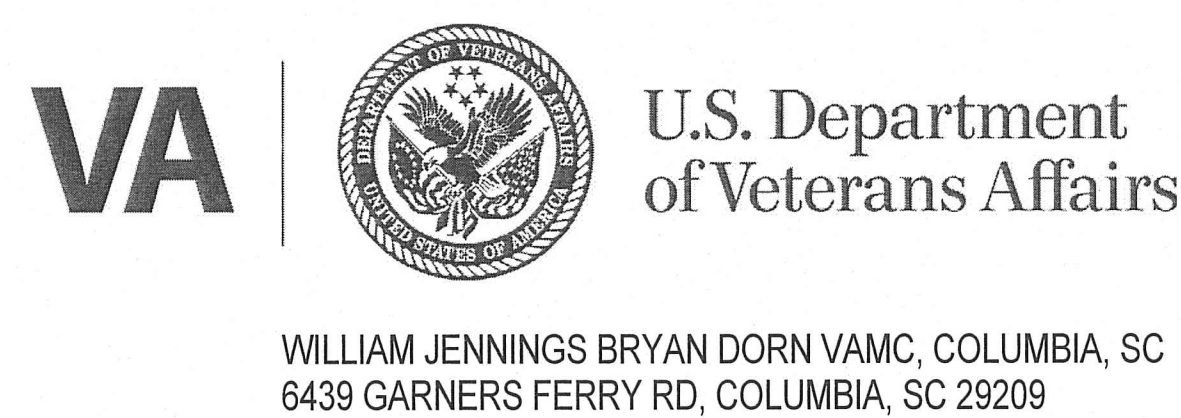


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
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			Building Number BLDG 108			
Location COLUMBIA, SC VAMC			Drawing Number		VA Project Number 544-306	
Date 4 DEC 2015	Checked By: SPG	Drawn By: ORD	PP102		  U.S. Department of Veterans Affairs	



1 LEVEL 3 - PLUMBING PLAN
PP103 3/32" = 1'-0"

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Architect, Civil Engineer

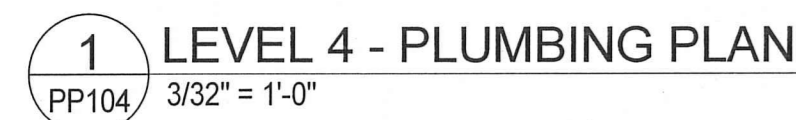
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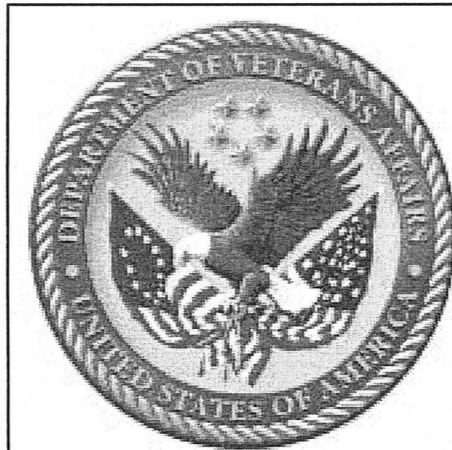
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CONSTRUCTION DOCUMENTS						
Drawing Title LEVEL 3 PLUMBING PLAN		Project Title CONSTRUCT PARKING GARAGE		A/E Project Number 15.1003		OFFICE OF FACILITIES MANAGEMENT
				Building Number BLDG 108		
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER		Location COLUMBIA, SC VAMC		Drawing Number		VA Project Number 544-306
				<div>Date 4 DEC 2015</div> <div>Checked By: SPG</div> <div>Drawn By: ORD</div>		<div>PP103</div> <div><div>VA</div><div></div><div>U.S. Department of Veterans Affairs</div></div>



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ARCHITECT/ENGINEERS:


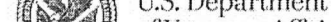
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CONSTRUCTION DOCUMENTS					
Drawing Title LEVEL 4 PLUMBING PLAN	Project Title CONSTRUCT PARKING GARAGE	A/E Project Number 15.1003		OFFICE OF FACILITIES MANAGEMENT	
		Building Number BLDG 108			
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER	Location COLUMBIA, SC VAMC		Drawing Number PP104		VA Project Number 544-306
	Date 4 DEC 2015	Checked By: SPG	Drawn By: ORD	 	

GARAGE DIMENSIONS:

LENGTH = 318.5 FT
WIDTH = 124 FT
HEIGHT/LEVEL = 11'-4"
PARAPET WALL OR OPEN HEIGHT PER LEVEL = 4'-6"

AREA A = 5718 FT²
AREA B = 5310 FT²
AREA C = 5058 FT²
AREA D = 5716 FT²
AREA E = 3648 FT²
RAMP AREA = 18804 FT²
ELEVSTAIR = 936 FT²
STAIR = 582 FT²

LEADER 1 (AREAS A+STAIR) : 8'ø

AREA PER LEVEL:

LEVEL 4	5718 FT ²
LEVEL 3 :	500 FT ²
LEVEL 2 :	762 FT ²
TOTAL:	7000 FT ²
LEVEL 1 :	1000 FT ²
TOTAL :	1000 FT ²

LEADER 2 (AREA B+ELEV+STAIR): 8'ø

AREA PER LEVEL:

LEVEL 4	6746 FT ²
LEVEL 3 :	500 FT ²
LEVEL 2 :	500 FT ²
LEVEL 1 :	500 FT ²
TOTAL:	8246 FT ²

LEADER 3 (AREA C) : 8'ø

AREA PER LEVEL:

LEVEL 4	5058 FT ²
LEVEL 3 :	500 FT ²
LEVEL 2 :	3000 FT ²
LEVEL 1 :	500 FT ²
TOTAL:	6558 FT ²

LEADER 4 (AREAS D+RAMP) : 8'ø, 12'ø, 15'ø

AREA PER LEVEL:

LEVEL 4	5716 FT ²
LEVEL 3 :	28686 FT ²
LEVEL 2 :	3000 FT ²
LEVEL 1 :	3000 FT ²
TOTAL:	34686 FT ²

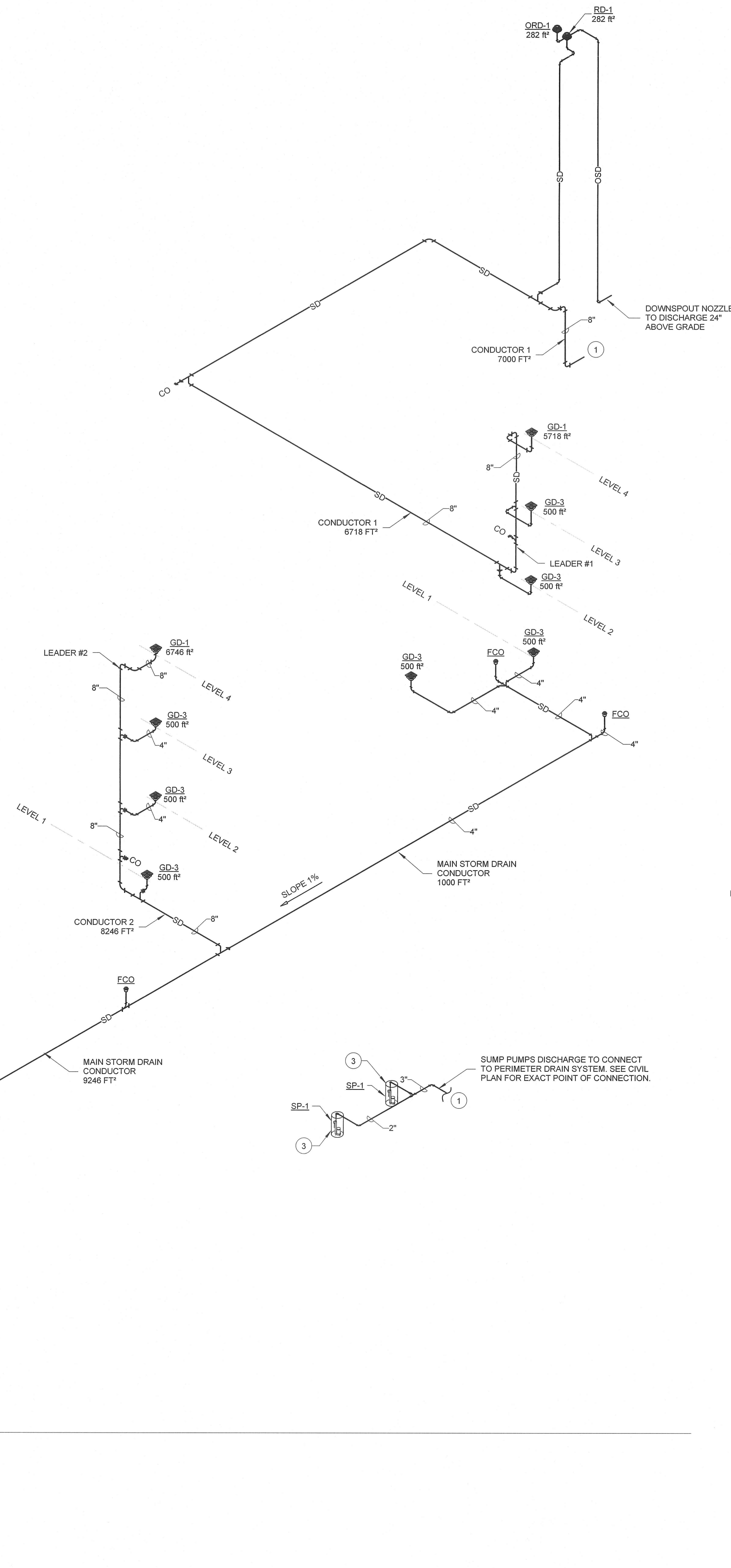
COLUMBIA, SOUTH CAROLINA 100 YEAR 60 MIN. PRECIPITATION: 4.0 IN

HORIZONTAL LEADER CAPACITY - TABLE 1106.3 (1% SLOPE):

8" @ 4.0"HR = 1800 FT ³
8" @ 4.0"HR = 5350 FT ³
8" @ 4.0"HR = 11,500 FT ³
10" @ 4.0"HR = 20,700 FT ³
12" @ 4.0"HR = 33,300 FT ³
15" @ 4.0"HR = 59,500 FT ³

VERTICAL LEADER CAPACITY - TABLE 1106.2(1):



8" @ 4.0"HR = 15,500 FT ³
8" @ 4.0"HR = 5350 FT ³
8" @ 4.0"HR = 29,000 FT ³



The left diagram illustrates a domestic water ISO 1 system. It features a vertical pipe with a drain valve at the bottom. Above the drain valve is a backflow preventer (BPZ-1) and a check valve. The pipe is labeled with various sizes: 1", 3/4", and 1". Callouts include P-801, 2, and 1.

The right diagram illustrates a domestic water ISO 2 system. It features a vertical pipe with a drain valve at the bottom. The pipe is labeled with various sizes: 1", 3/4", and 1". Callouts include P-801, 2, and 1.

3 DOMESTIC WATER ISO 2
PP901

CONSTRUCTION DOCUMENTS					
Drawing Title PLUMBING RISERS	Project Title CONSTRUCT PARKING GARAGE	A/E Project Number 15.1003		OFFICE OF FACILITIES MANAGEMENT	
		Building Number BLDG 108			
Approved for Design Concept: FACILITY MANAGEMENT DIVISION MANAGER	Location COLUMBIA, SC VAMC		Drawing Number PP901		VA Project Number 544-306
	Date 4 DEC 2015	Checked By: SPG	Drawn By: ORD	  U.S. Department of Veterans Affairs	